

**The University of Craiova
The Faculty of Economy and Business Administration
Economic Sciences Doctoral School**

PH. D. THESIS
**Tendencies of Implementing the Advanced
Management Methods within Romanian
Organizations**
-abstract-

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Craiova 2011

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KEY WORDS

Management systems, advanced management methods, information and communication theory, integrated informational system, economic intelligence, board panel, score-card, implementation, best practice guide

ABSTRACT

The doctorate thesis entitled “Tendencies of implementing the advanced management methods within Romanian organizations” attempts both to investigate the present condition of implementing the advanced management methods of Romanian organizations and to identify possible opportunities regarding the improvement of the management of Romanian organizations. The doctorate thesis belongs to an interdisciplinary field that witnesses management interpenetrating with informatics and even with engineering. It attempts to approach informational systems seen as advanced management methods according to a managerial prospect. At the same time, it also tries to emphasize the manner the implementation of informational devices may change a traditional labor habit of managers.

The present interest of the approach consists in the powerful impact IT&C technologies have upon the development of nowadays organizations as well as upon the daily life of each individual; nevertheless, one should not ignore the special condition Romanian economy and especially Romanian society as a whole is confronted with during the current period.

The motivation of the approach is supported by the fact that IT&C industry has had an explosive development during the last years in Romania. Accordingly, this industry represents 10% of Romania’s gross domestic product, a quite high percent in case one notices that not long ago it represented only 3%. At the same time, global financial crisis is being deeply felt in Romania due to the structural crisis Romanian society has been led towards. When employing the phrase “led towards” we refer to the defective management of the last 20 years during which the numberless wrong decisions that were taken were responsible for nowadays crisis.

We have started the elaboration of the thesis relying upon our own experience of about 20 years in the field of planning and implementing informational systems and mainly upon the experience of training the users of such systems. According to our vision, the importance of informational systems primarily consists in effectively and responsibly understanding the need of adapting to a global informational society by all managers or persons of an organization; the reason of taking the course of such an action is determined by the fact that today informational systems increasingly develop into an indispensable and vital component of the business success of an organization or of an entrepreneur.

The approach has been homogeneously structured according to four chapters focusing upon joining the theoretical elements with the practical ones in the investigated field. In order to emphasize the theoretical elements, we have elaborated Chapter 1 entitled “Characteristics

of the management systems specific to Romanian organizations”, Chapter 2, “Informatics systems, advanced management methods of Romanian organizations”, and Chapter 3 dealing with the employed research methodology and entitled “Research methodology in the field of the advanced management of Romanian organizations”. Consequently, the first two chapters of the thesis belong to an issue that might bear the title “Advanced management methods”. These two chapters carry out a review of the present stage of scientific knowledge in the field of the methodological and management subsystem of management.

The practical part is vast owing to the diversity of the investigation methods and to the large number of topics; it mainly focuses upon Chapter 4 entitled “Implementing the advanced management methods within Romanian organizations owing to informational systems”.

The first chapter contains a subchapter dealing with the main management systems successfully employed by Romanian organizations. Another subchapter focuses upon the advanced management methods proposed to be used by the Romanian managers, although certain of them are being already employed, sometimes quite efficiently. This subchapter displays a detailed review of the management integrated informational systems known as Enterprise Resource Planning (ERP) Systems; they are management devices that integrate the economic processes of an organization and optimize its resources as well as those of the systems of decisional support belonging to the category of economic intelligence and known as Business Intelligence Systems (BI); such systems are an important factor of the competitiveness of present organizations, namely a device that extracts out of an ERP system the essential data necessary to a manager; they are also modern management methods employed worldwide and have as a background informational and communication technology namely the board panel or score-card.

While noticing a short overview of the evolution of the main management methods during the last 50 years we have tried to draw out the chapter dealing with the advanced methods used by the management of Romanian organizations. Management methods have witnessed an evolution lately, namely during the period 1990 -2010, strictly connected with the information and communication technologies. Accordingly, while the decade ‘70 – ‘80 belonged to the management methods characterized by strategy, leadership or excellence, beginning with the ‘90s, the personalities of management history have proposed, conceptualized, and studied management methods in close connection with information technology. The years ’90s and 2000 were strongly influenced, in the field of management methods and techniques, by a series of professors, researchers and scientists belonging to American universities and having an engineering, management, and IT interdisciplinary training. The methods meant for organization’s strategy, such as score-card, or for complex management decisions, such as business analyses, represent in our vision the sole solution a business and an organization may adopt in order to enter the decade to come. We consider that the category of the advanced management methods should include: *Enterprise Resource Planning, Business Intelligence, Balanced Scorecard, Business Process Reengineering, Business Process Management, and Enterprise Content Management.*

Chapter 2 displays a systematic and comparative approach of existing or potential conditions in the field of the informational systems implemented by Romanian organizations.

Accordingly, we have drawn out a presentation of the international and national markets of ERP (Enterprise Resource Planning – integrated informational systems planned with a view to efficiently model and administrate the resources of an organization) informational applications as well as BI (Business Intelligence – the economic business of an organization owing to decisional support informational systems) applications. We have identified the common elements as well as the different ones of the circumstances analyzed within the organizations that employ informational systems as management methods, a fact that determined the drawing out of research hypotheses. The chapter envisaged the global presentation of the market of ERP and BI applications; accordingly, ten companies active on ERP's Romanian market (SAP, Oracle, Microsoft, SIVECO through SA 2011, EBS through Clarvison, Total Soft through Charisma, Wizrom, SeniorSoftware through SeniorERP, WinMentor and Alfa Software through ASiS) have been displayed, and five companies active on BI's Romanian market (Microsoft, Oracle, SIVECO, Total Soft and Panorama).

Chapter 3 exhibits the theoretical elements of the research, more precisely, the strategies and principles that represent the foundation of the research itself. Accordingly, we have planned a questionnaire we have distributed to 13 large companies that implemented SIVECO proprietary informational systems and we have formulated a series of hypotheses able to emphasize the importance integrated informational systems detain within an organization and to show whether they are employed as advanced management methods. We have stated seven hypotheses based upon the most recent specialized studies in American literature displayed by well-known magazines. The answering organizations undergoing the investigation have been chosen out of SIVECO Romania implementations portfolio; they have given answers at the level of year 2010. Although the research is based on only 13 organizations, they are nevertheless representative as in 2010 Romania only 5 000 organizations really needed such advanced management methods; moreover, out of them, only 2 000 were large organizations (more than 250 employees) capable of affording the implementation of vast ERP and BI systems belonging to SAP, Oracle or SIVECO class. We should also mention that the 2 000 large organizations generate incomes that are twice the incomes of the 10 000 average organizations and as large as those of the almost 500 000 small (under 50 employees) organizations. Out of the 2 000 organizations, a large part represents branches or subsidiaries of certain transnational or multinational companies which have mostly implemented the existing applications within the mother-company (SAP or Oracle). Consequently, one is entitled to investigate only the public organizations in Romania and the private organizations with Romanian capital. The two categories have a 100% Romanian management and, according to the present circumstances, we consider it is extremely important they improve their management. Although in elaborating the research hypotheses we have had in view a series of works belonging to American literature, we have made these hypotheses particular for Romanian organizations according to our own experience of almost 20 years in the field of planning, implementing, and of training in the field of informational systems.

Chapter 4 attempts to demonstrate, according to certain quantitative and qualitative methods, namely according to the quantitative and qualitative questionnaire previously elaborated and meant for the IT managers and specialists of the 13 , respectively 6 Romanian

organizations, seven research hypotheses. We have also carried out an investigation focusing on small and medium size companies that have implemented informational systems and we have emphasized the specific aspects of the implementation of informational systems in case of small and medium size companies and micro-companies.

The main personal contributions structured according to the four chapters are the following ones:

- Identifying the characteristics of management systems of Romanian organizations
- Identifying the categories of advanced methods proposed to Romanian organizations
- A complete analysis, at the level of year 2011, of the stage of the Romanian market of management integrated informational systems and of decisional support informational systems
- Formulating the research hypotheses necessary in order to coherently investigate Romanian organizations
- The carrying out of the first research in the IT field within the Romanian organizations belonging to the SIVECO portfolio, according to a management prospect that displayed the analysis of Romanian organizations from the point of view of implementing the advanced management methods by large organizations.

We have analyzed Romanian organizations from the point of view of the implementation of the advanced management methods both at the level of large organizations (the 13 SIVECO implementations), as well as at the level of the small and medium size companies (the 440 small companies).

The above mentioned analysis has determined a series of conclusions we have grouped into four categories:

- Conclusions regarding the SIVECO implementations by large Romanian organizations (9),
- Conclusions regarding the implementations of informational systems by small and medium size companies (7),
- Validation of the hypotheses of scientific research formulated regarding the existing connections among management decision, advanced management methods, and information technology (7). The validation of these hypotheses regarding the existing connections among management decision, the advanced management methods, and information technology, allowed us to show the importance information technology has upon an organization at informational, decisional, and methodological levels.
- Elaboration of a best practice guide in order to be able to choose the most adequate methods of management meant for an organization.

Best practice guide. We have elaborated a good practice guide as a response to the following questions: *“Does the culture of implementing business applications exist? Do Romanian managers understand the utility of such a solution?”* In order to elaborate this guide we have identified the three possible versions of implementing these integrated systems within organizations and, afferent to these versions, the benefits and the various risks

emphasized by the research in order to be avoided. We consider that it should be focused on six main strategies:

- Design a new approach of the informational and functional infrastructure (a virtual structure) within an organization, starting by approaching it as a business through defining primary data and focusing on getting the output reports according to the business's requests.
- Ensure a complete approach (end to end) of the processes of a business, through a strong horizontal integration of the processes and the decisive influencing the results of its application.
- Ensure the informational support necessary for taking the decision at the operational management level by performing a background restructuring of the business, of the business process reengineering type.
- Founding the activity upon the combining of the business, statistics and engineering methodologies, stressing the interdisciplinary character of any field of activity.
- Choosing the most appropriate informational integrated system based upon offer consulting (see the ample market analysis we have carried out), upon consultants' advice as well as upon the experience of the personnel within the IT department.
- The integrated informational business devices must match the requirements and expectations of the managerial teams and allow the use of advanced management methods in order to achieve business objectives.

We have taken the decision of elaborating this small guide of good practice with a view of choosing the most suitable advanced management methods for an organization; this is due to the fact that procedures, methods, etc. have been settled in case of the vital issues Romanian society has to face while good practice guides based upon a positive experience have most of the time been forgotten or omitted.

At the end of the approach we have formulated six general conclusions regarding the part the advanced management methods should play within Romanian organizations.

A first conclusion is that informational systems play or should play a vital part in the success of an organization. Accordingly, they can provide the internal, external or inter-organizational informational infrastructure required by the business owing to: providing operational efficiency, providing an efficient management and a competition advantage.

The second conclusion consist in the fact that the success of an informational system should not be analyzed only owing to its efficiency as a lot of people wrongly consider (costs minimizing, time or use of informational resources, elements quantified according to the envisaged questionnaires) but also owing to the support they provide with a view of elaborating business strategies, of developing trade processing, of improving organizational structure and culture, and of increasing the organization's business result and value within a dynamic and competitive environment.

Another conclusion based upon an individual and managerial point of view emphasizes the fact that informational systems represent more than a series of immediate results; they are mainly important means of providing the business's functionality, an essential factor that influences operational efficiency, the productivity of employees and of the customer relations; they are a foundation of data that determine the taking of correct decisions, a means of developing new products (services) that represent a competitive advantage and they are one of the most important resources of the organization as well as a means of analyzing the cost of the business.

Another coordinate we have focused upon is that of making both the managers and the final users conscious of the fact that informatics is a device they should employ and out of which they should get maximum benefits; it is not a danger for employees nor for the organization.

The managers and users (final or not) of the advanced management methods and of informational systems need not know the complex technologies, the abstract concepts or the specialized applications belonging to informational systems; instead, they should be provided a definite conceptual framework of, at least, five areas: the fundamental concepts of the informational system, the applications of informational systems, the development of informational systems, and the management of informational systems.

Managerial decision, managerial capacity, managerial experience, and management as a resource of an organization is directly dependent on the integrated management informational systems, the ERP, BI, and KM applications, or globally speaking on the informational technology; all these devices should be considered as advanced management methods.

We have chosen this research topic due to the fact that under the present social and economic circumstances the conceptualization and use of certain advanced management methods represent one of the main coordinates owing to which management asserts itself as a fundamental element of organizational culture. The period we face places organizations in an unpredictable and instable environment; the solution of coping with such circumstances can only be provided by a performing management. Meanwhile, informational and communication technology definitely influences the existing organizations, and, as the first chapter shows, management methods become decisive for the organization's evolution. Consequently, we consider as necessary a radiography of Romanian society regarding the implementation of the advanced management methods based upon information technology capable of offering both an overall view of the implementation level of these methods within Romanian organizations and a prefigure of what it is going to be done in Romanian society at the level of modernizing the organizations' management.